

ADVANCES IN HILLSLOPE PROCESSES (Volumes 1 and 2) edited by Malcolm G. Anderson and Susan M. Brooks, John Wiley & Sons, Chichester, 1996. No. of pages: xviii + 1306 (Vol. 1). Price: £150.00 (hb). ISBN 0-471-96774-2.

This book was produced in conjunction with the 1996 Annual General Meeting of the British Geomorphological Research Group held at Bristol. Not all the papers presented at the conference are included in the book and, more significantly, the book includes some papers that were not given at the conference. Wisely, the editors chose comprehensiveness of coverage over availability of authors to be present at Bristol. That comprehensiveness is indicated by the range of authors. Although British geomorphologists dominate the list of authors, about one-third come from 10 other countries.

The book is a magnificent achievement and the editors are to be congratulated on its production. Its aim is rather less to document advances in hillslope processes than to present the current spectrum of research themes. In that aim it is wholly successful. The editors have brought together an extremely wide-ranging collection of expertise. The book is divided into nine major sections: hillslope hydrological processes (six chapters), hillslope solute processes (seven chapters), soil processes on hillslopes (seven chapters), soil erosion on hillslopes (nine chapters), gully development processes (four chapters), slope stability (seven chapters), tropical hillslope processes (four chapters), semi-arid hillslope processes (five chapters) and periglacial hillslope processes (five chapters). In addition, there is an overview of hillslope research by the editors and a foreword by R. J. Chorley.

With few exceptions, the standard of the individual contributions is high. Most of the chapters in this book would not be out of place as papers in the leading journals in geomorphology. Behind this compliment lies my only criticism of the book. I do not believe it is the role of books merely to duplicate or extend the publication outlet provided by the journals. Rather they should be more than the sum of their parts and should contain material that is seldom seen and may, indeed, be out of place in the journals. In particular, books of this type provide an opportunity for leading experts in their particular field to comment on and review advances in their field. To some extent, this role is carried out. In addition to the chapter by the editors mentioned earlier, I would single out those by Brammer and McDonnell, Boardman, De Roo, and Anderson *et al.* as particularly noteworthy in this regard. The book would have been better if there had been at least one such chapter in each of its major sections.

The book is handsomely produced, and handsomely priced! At such a price most of its sales will be to libraries, which is a pity because it is the sort of reference work that should be on the shelves of all geomorphologists interested in hillslopes. Fortunately, many of them will have obtained copies free as authors, or at a substantial discount as participants at the conference.

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QUATERNARY AND GLACIAL GEOLOGY by Jürgen Ehlers, John Wiley & Sons, Chichester, 1996. No. of pages: 578. Price: £75.00 (hb). ISBN 0-471-95576-0.

This book is, in the main, a translation of *Allgemeine und historische Quartärgeologie* by Jürgen Ehlers, published in German in 1994. The contents are very much as indicated by the title. Chapters 2–4 are concerned with glacial processes, sediments and landforms, and part of Chapter 8 is concerned with methods of investigating glacial deposits. Chapters 5–7 and the second part of Chapter 8 deal with non-glacial sediments, landforms and environments, and Chapters 9, 10, 14 and 15 are concerned with Quaternary stratigraphy, dating, and rivers and loess, respectively. The remaining chapters cover regional stratigraphies of northern Europe, the Alps and North America, a general introduction to the causes of Quaternary ice ages and an overview of environmental change and especially glaciation over approximately the last 3 million years.

Within the terms of reference set out by the chapter headings, the book is informative and readable, following the high standards set by the author's earlier publications such as *Glacial Deposits in North-West Europe* (Ehlers, 1983), *Glacial Deposits in Great Britain and Ireland* (Ehlers *et al.*, 1991), and *Glacial Deposits in North-East Europe* (Ehlers *et al.*, 1995). The content reflects competence with the subjects

covered and a sound understanding of the conventional and established views of glacial and Quaternary geology. This reads like 'faint praise', but this is not the intention, rather a simple and clear statement of a successful achievement whose pattern follows an established format. What is distinctive is the extensive use of German examples to illustrate many of the systematic topics, often refreshingly taken from the author's own experience or research, and the high proportion of Germanic literature used to reconstruct the regional stratigraphic histories of northern Europe and the Alps. With the exception of Nilsson's (1982) *The Pleistocene*, this gives Ehler's book outstanding value in the English language Quaternary literature.

The format of the book highlights an issue of the structure and content of Quaternary textbooks published over the past decade or so, and the scope and achievements of Quaternary science. Quite simply, there has been a deluge of textbooks reflecting the growth and importance of the study of climatic and environmental change over the last 2–3 million years, and the continuing output of new and important research discoveries on the systematics and rates of Quaternary environmental change, as well as a continuing output of interesting and, maybe, critical regional palaeogeographies. The result is that authors have had to adopt a clearly directed strategy in order to achieve a niche within the subject area. For instance, Imbrie and Imbrie (1979) with *Ice Ages, Solving the Mystery* introduced a concept to the subject, and

Andersen and Borns (1994) introduced readers to the excitement of Quaternary science with *The Ice Age World*. Lowe and Walker (1984, 1997) have concentrated on *Reconstructing Quaternary Environments*, Bradley (1985) has emphasized *Quaternary Palaeoclimatology*, and Goudie (1977, 1993) and Roberts (1994) have, respectively, concentrated on *Environmental Change* and *The Changing Global Environment*. Others, such as Dawson (1992) with *Ice Age Earth*, and Roberts (1989) with *The Holocene* have concentrated on particular intervals of time or, in the case of Birks and Birks (1980) with *Quaternary Palaeoecology*, Delcourt and Delcourt (1991) with *Quaternary Ecology*, and Sutcliffe (1985) with *On the Track of Ice Age Mammals*, have concentrated on systematic aspects of Quaternary science. Likewise Jones and Keen (1993) with *Pleistocene Environments in the British Isles* and Donner (1995) with *The Quaternary History of Scandinavia* have concentrated on a specific region, and specialist topics such as glacial geology have had a number of highly focused texts such as Menzies (1995, 1996) with *Modern Glacial Environments* and *Past Glacial Environments*, and Bennett and Glasser (1996) with *Glacial Geology*.

Clearly, with this specialist approach, particular topics can be dealt with in greater detail or the text can be presented in a fashion that is highly reader-friendly, as is the case with Andersen and Borns, Lowe and Walker, and Bennett and Glasser. It is critical therefore that the book should either respond to the market or attempt to set its own agenda. From my own experience, glacial geology and Quaternary science now follow two quite separate scientific pathways requiring different types of basic knowledge and having fundamentally different aspirations. *Quaternary and Glacial Geology* by Jürgen Ehlers is in the tradition of *The Great Ice Age* by James Geikie (3rd edition 1984) and *Glacial and Quaternary Geology* by Richard Foster Flint (1971) and is unlikely to be recommended as a course text. However, the outstanding reference list (covering 90 pages) and the excellent source of German Quaternary literature make it an essential purchase for departmental and institutional libraries.

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